



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,463	03/29/2007	Manfred Ratzsch	4385-060084	9932
28289	7590	03/10/2009		
THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219			EXAMINER HEINCER, LIAM J	
			ART UNIT	PAPER NUMBER
			1796	
			MAIL DATE	DELIVERY MODE
			03/10/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,463	Applicant(s) RATZSCH ET AL.	
	Examiner Liam J. Heincer	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-25 and 27-44 is/are pending in the application.
- 4a) Of the above claim(s) 34-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-25, 27-33, 43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 30, 2009 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 23, 24, 30-33, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratzsch et al. (WO 03/046053) in view of Grigo et al. (US Pat. 4,232,132). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Art Unit: 1796

Considering Claim 23: Rätzsch et al. teaches a composite material (example 5) comprising up to 300% by weight of wood fibers/particles (5:32-39) per 100% amine resins (14:26-44) and a triazine resin (2:37-58) that can be a melamine resin (2:20-36) that has been cured/cross-linked (14:26-40). Rätzsch et al. also teaches mixing the melamine ethers with ethylene vinyl acetate in a ratio of 2:1 by weight (Example 7). Rätzsch et al. teaches the composite as being made through extrusion (Example 7).

Rätzsch et al. does not teach partially crosslinking the ethylene vinyl acetate polymer. However, Grigo et al. teaches using partially crosslinked ethylene vinyl acetate polymer (1:40-42) with a vinyl acetate content of from 30 to 50 (1:52-55) as an additive in a polymer mixture. Rätzsch et al. and Grigo et al. are analogous art as they are concerned with the same field of endeavor, namely polymer blends comprising ethylene vinyl acetate additives. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the partially crosslinked ethylene vinyl acetate polymer of Grigo et al. in the mixture of Rätzsch et al., and the motivation to do so would have been, as Grigo et al. suggests, the mixtures comprising crosslinked ethylene vinyl acetate polymers have higher notched impact strength than their uncrosslinked counterparts (3:4-9).

Considering Claim 24: Rätzsch et al. teaches the wood as being present in fibers or flour (5:19-39).

Considering Claims 30 and 31: Rätzsch et al. teaches the material as being a foamed material, a profile or an injection molded article (abstract).

Considering Claim 32: Rätzsch et al. teaches the linking groups as being other than the excluded group (2:58-3:10) and the hydroxyl groups as being exclusively etherified with C₁-C₁₈ alkyl groups (3:52-54).

Considering Claim 33: Rätzsch et al. teaches the thermoplastic as being ethylene-vinyl acetate copolymers, polyurethane polymers, or aliphatic or aromatic polyesters (5:40-6:55).

Considering Claim 43: Rätzsch et al. teaches a roof element comprising the composite material (16:59-17:10).

Art Unit: 1796

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ratzsch et al. (WO 03/046053) in view of Grigo et al. (US Pat. 4,232,132) as applied to claim 23 above, and further in view of Imoto (US Pat. 5,780,519). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claim 25: Rätzsch et al. teaches the composite of claim 23 as shown above. Rätzsch et al. also teaches the wood as being used up 75% of the composite (14:26-44).

Rätzsch et al. does not teach the wood as being a combination of fibers and shavings. However, Imoto teaches using a combination of fibrous wood and wood shavings in a wood composite material (1:53-56 and 2:54-56) where the shavings are present in an amount of at least 50 percent of the wood material (7:41-43). Rätzsch et al. and Imoto are combinable as they are concerned with the same field of endeavor, namely lignocellulsoic composites. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the combination of wood fillers of Imoto in the composite of Rätzsch et al., and the motivation to do so would have been, as Imoto suggests, it will lower the cost of the composite (7:41-8:3).

Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratzsch et al. (WO 03/046053) in view of Grigo et al. (US Pat. 4,232,132) as applied to claim 23 above, and further in view of Medoff et al. (US Pat. 6,448,307). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claims 27-29: Rätzsch et al. teaches the composite of claim 23 as shown above. Rätzsch et al. also teaches adding up to 2 weight percent of a UV absorber (14:40-42).

Rätzsch et al. does not teach adding a flame retardant, pigment, or auxiliary. However, Medoff et al. teaches adding a flame retardant, colorant/pigment or lubricant (6:20-28) to a melamine-wood composite. Rätzsch et al. and Medoff et al. are combinable as they are concerned with the same field of endeavor, namely melamine-wood composites. It would have been obvious to a person having ordinary skill in the art at the time of invention to have added the components of Medoff et al. to the

Art Unit: 1796

composite of Rätzsch et al., and the motivation to do so would have been, as Medoff et al. suggests, these are well known additives in thermosetting compositions (6:20-28).

Rätzsch et al. does not teach the flame retardant, pigment, or auxiliary as being added in the claimed amounts. However, it is well known in the art to optimize result effective variables such as ingredient amount. It would have been obvious to a person having ordinary skill in the art at the time of invention to have optimized the amounts of the components through routine optimization, and the motivation to do so would have been to increase the fire resistance, provide the desired colored product, and to increase the processability respectively.

Claims 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rätzsch et al. (WO 03/046053) in view of Grigo et al. (US Pat. 4,232,132). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claim 44: Rätzsch et al. teaches a composite material (example 5) comprising up to 300% by weight of wood fibers/particles (5:32-39) per 100% amine resins (14:26-44) and a triazine resin (2:37-58) that can be a melamine resin (2:20-36) that has been cured/cross-linked (14:26-40). Rätzsch et al. also teaches mixing the melamine ethers with ethylene vinyl acetate in a ratio of 2:1 by weight (Example 7).

Rätzsch et al. does not teach partially crosslinking the ethylene vinyl acetate polymer. However, Grigo et al. teaches using partially crosslinked ethylene vinyl acetate polymer (1:40-42) with a vinyl acetate content of from 30 to 50 (1:52-55) as an additive in a polymer mixture. Rätzsch et al. and Grigo et al. are analogous art as they are concerned with the same field of endeavor, namely polymer blends comprising ethylene vinyl acetate additives. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the partially crosslinked ethylene vinyl acetate polymer of Grigo et al. in the mixture of Rätzsch et al., and the motivation to do so would have been, as Grigo et al. suggests, the mixtures comprising crosslinked ethylene vinyl acetate polymers have higher notched impact strength than their uncrosslinked counterparts (3:4-9).

The instant claim is a product by process claim. “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). See MPEP § 2113. As the combination of Ratzsch et al. and Grigo et al. teaches all the components of the final product, the burden is on the applicant to provide evidence of a materially different structure resulting from the claimed process steps.

Response to Arguments

Applicant's arguments filed January 30, 2009 have been fully considered but they are not persuasive, because:

A) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the crosslinking of the EVA after the introduction into the composite) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Additionally the claims are directed towards a product, not a process of making the polymer. As such, the method of making is not critical to the patentability as long as the claimed components are present in the product.

B) In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, It would have

Art Unit: 1796

been obvious to a person having ordinary skill in the art at the time of invention to have used the partially crosslinked ethylene vinyl acetate polymer of Grigo et al. in the mixture of Rätzsch et al., and the motivation to do so would have been, as Grigo et al. suggests, the mixtures comprising crosslinked ethylene vinyl acetate polymers have higher notched impact strength than their uncrosslinked counterparts (3:4-9).

Applicants assertion that the improvement in thermoplastic properties would not be beneficial to a dermoplastic material is not persuasive. As the composition of Ratzsch et al. is thermoplastic during the possessing (Example 7), improvements in thermoplastic properties would be beneficial at least during this stage of the processing. Additionally, as the applicant has pointed out, the compositions of Grigo teaches a composition produced by thermoplastic processing techniques (page 14 of applicants arguments). Therefore a person having ordinary skill in the art at the time of invention would assume that the addition of an additive of Grigo et al. would not interfere with the ability of a composition to be thermoplastically processed, absent evidence to the contrary.

C) In response to applicant's argument that Imoto and Medoff et al. teach different matrixes for their lignocellulosic composites than the instant claims, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The secondary references are not required to teach all the limitations of the claim to be relevant.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

Art Unit: 1796

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo/

Supervisory Patent Examiner, Art Unit 1796

LJH

March 4, 2009